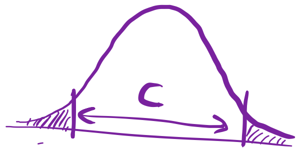
# Week 10

$$P(k;\, p, n) = p^k (1-p)^{n-k} \frac{n!}{k!\,(n-k)!}$$

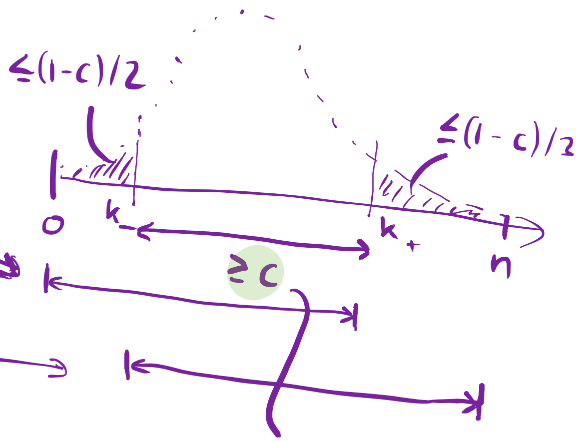
$$\langle k \rangle = np$$

$$\int_{-\infty}^{x_-} P(x)\,dx = \int_{x_+}^{\infty} P(x)\,dx = (1-c)/2$$




$$\sum_{k=0}^{k_-} P(k;\, p, n) = \sum_{k=k_+}^{n} P(k;\, p, n) = (1-c)/2$$

$$\sum_{k=0}^{k_+} P(k;\, p, n) \geq 1 - (1-c)/2$$




$$\sum_{k=k_-}^{n} P(k;\, p, n) \geq 1 - (1-c)/2$$

e.g. ≥ 90% confidence level